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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,010

08/21/2006

Kenji Tamada

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EXAMINER

KRAUSE, JUSTIN MITCHELL

ART UNIT

PAPER NUMBER

3656

MAIL DATE

DELIVERY MODE

01/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,010	Applicant(s) TAMADA ET AL.	
	Examiner JUSTIN KRAUSE	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/21/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what applicant considers a "W-type" cage, as it cannot be determined what shape or profile of the cage is being defined. Further, the phrase "W-type" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "-type"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikezawa et al (US Patent 5,630,668).

Ikezawa discloses a thrust needle bearing employing lubricating oil having a rolling element (NR) held by a cage (see Fig 2, for example), wherein the value of the

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arithmtic average roughness Ra of the rolling element is set to at least .03 micrometers and at most .15 micrometers (see claim 7).

Regarding claims 2 and 3, Claim 7 of Ikezawa discloses that at least one of the cage, the race and the roller has a roughness of .05 Ra or less, satisfying the claimed ranges.

Regarding claims 4 and 5, the incorporation of the bearing into a particular device or environment is not itself patentable.

Ikezawa explicitly discloses the bearing is for use in an air conditioner compressor (col 1, line 21), and the device is also capable of being incorporated into any other device, including an automatic transmission.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitner (US Patent 3,163,478).

Pitner discloses a thrust needle bearing employing lubricating oil and having a rolling element (10) held by a cage (2) wherein a clearance exists between a pocket guide face of the cage and the rolling element.

Pitner does not disclose a range for the clearance.

Pitner teaches a clearance between a pocket guide surface and roller which is necessary to allow for a lubricating wedge of oil (col 2, lines 53-56). The clearance required is a result dependant variable which is determined based upon the oil selected and the desired lubricating properties.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pitner to select a clearance range of 60 to 130 micrometers between the pocket guide face and roller for the desired purpose of allowing for a lubricating wedge of oil which achieves the desired lubricating characteristics.

Regarding claim 7, the cage is a W-type cage (profile, figure 7).

Regarding claims 9 and 10, the incorporation of the bearing into a particular device or environment is not itself patentable. The claims recite no particulars of the structure of the combination, the bearing of Pitner is capable of being incorporated into any device and bringing with it all the advantages of the improved bearing design.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pitner as applied to claim 6 above, further in view of Honda (US Patent 5,456,538).

Pitner does not disclose a surface roughness range for the roller.

Honda teaches a surface roughness of the roller to be less than .06 micrometers for the purpose of reducing friction.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pitner to include rollers with a surface roughness of less than .06 micrometers for the purpose of reducing friction as taught by Honda.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN KRAUSE whose telephone number is (571)272-3012. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Justin Krause/
Examiner, Art Unit 3656

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/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656